# What is Drafting?

A simple definition would be technical drawings and designs. These technical drawings and designs are used to produce everything that is manufactured. For example, this includes buildings, vehicles and furniture. Even your favorite cup that you drink your morning coffee out of was drawn to specific standards before being produced.

DRAFTING

# Drafting as a Communication Technology

These drawings and designs are held to specific standards that are recognized in many places around the world by people working in related fields. Drafting can be thought of as a language with many dialects. For example, an engineer, carpenter and interior designer may be able to understand 80% of each other's drawings/designs because of common standards. However, some standards may only apply to one's specific field. Ideally, an Canadian architect could communicate the construction of a hotel to trades people in Europe soley through drawings.

**WE WILL LOOK AT THE PAST TO SEE HOW THIS COMMUNICATIVE TECHNOLOGY HAS BEEN SHAPED.**

**THIS IS A GENERAL OVERVIEW. THE FOCUS IS MAJOR HISTORIC CONTRIBUTIONS TO THE DRAFTING LANGUAGE. NOT ALL HISTORIC CONTRIBUTIONS ARE MENTIONED.**

# The Archaic Period and Drafting

650-480 BCE

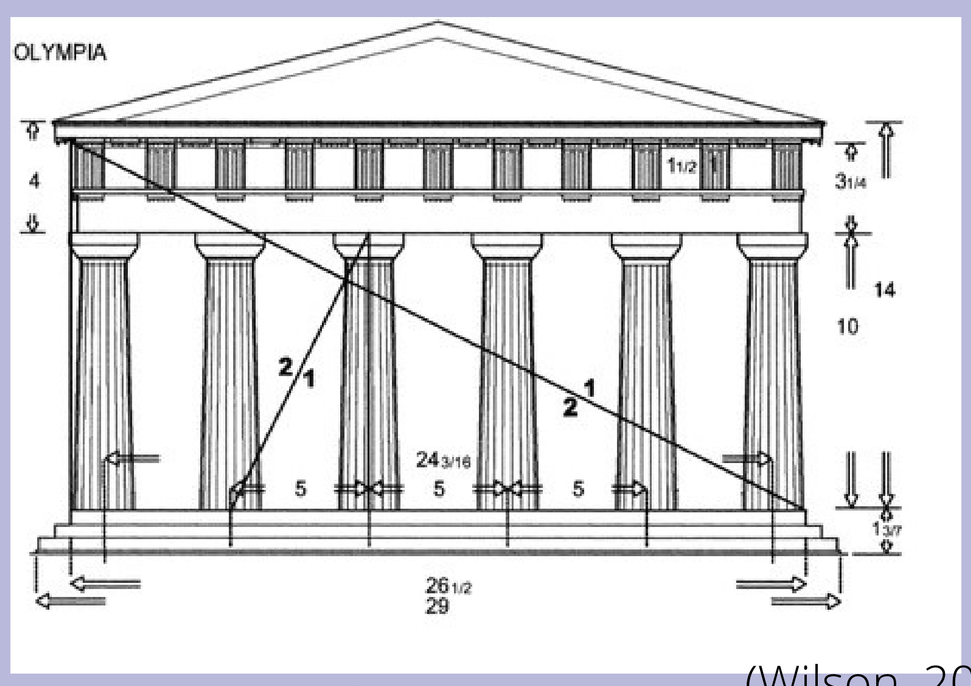
Little is known about Greeks and Italians methods of construction. However, given the structural accomplishments, it is hard to imagine some form of drawings not being used.

**First signs of ratios being used in a building process.**

A ratio allows for a relationship between items. Presently, it is often associated with scaled drawings. If a building is drawn with a ratio of 1:100, it means 1 unit on paper represents 100 units in real life. Ratios assist in keeping a drawing looking porportional.

Many Greek temple buildings shared common ratios (Sensensory, 2011). For example, blocks and pathways were set at common distances.

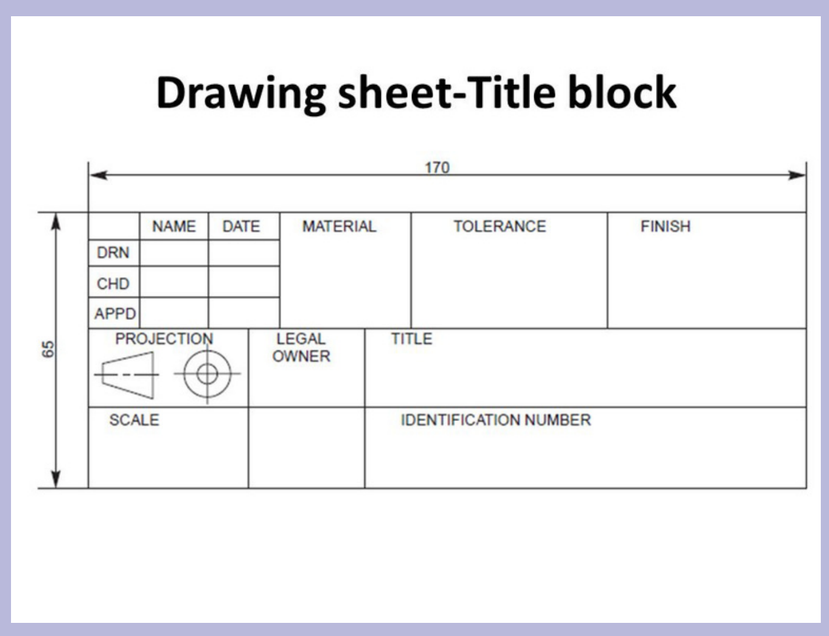
These recurring ratios show that the builders understood their materials well. It is assumed that some form of graphical representation was used (Crunden & Cosyn, 1991)




(Wilson, 2014)

Temples of Zeus.

Greek buildings of this era had similar ratios for layout of building components. Temples of Zues is just one example.




Example of modern title block used in drafting.

All modern day technical drawings will have some form of a title block. All title blocks will have a scale. The scale acts as a ratio for the drawing.

# The Classical Architechural Period

500BCE-480 CE

Some consider the Archiac period a part of the classical

Ancient Greeks and Romans continue to build structures that are standing today.

**The idea of drawing standards emerge. Current visualization methods possibly used.**

Roman architect, Vitruvius, left us with the earlist book on architectural design (Crunden & Cosyn, 1991). This book contained strict constructions methods for columns which were the strongest structure at the time. Today, drawings are not only capable of showing the positions, but also the building method.

Presently, we use perspective drawings to assist in showing what a final product will look like. The drawing incorporates depth that the human eye naturally sees. It can be argued that perspective techniques were used in famous buildings such as the ancient theatre of Epidaurus in Greece ( Sensensory, 2011). There is evidence of geometry being used by Plato at this time.

Epidarius in Greece

Although there is no evidence, it is often considered that the Epidarius theatre used modern day perspective drawing techniques


Modern 1st point perspective drawing

# The Renaissance Period and Drafting

1400-1600

A time for drawings and sketches to allow for visualization.

**The number and size of buildings grow. A wealth of knowledge is contributed to drafting standards as many plans and drawings of famous building are preserved.**

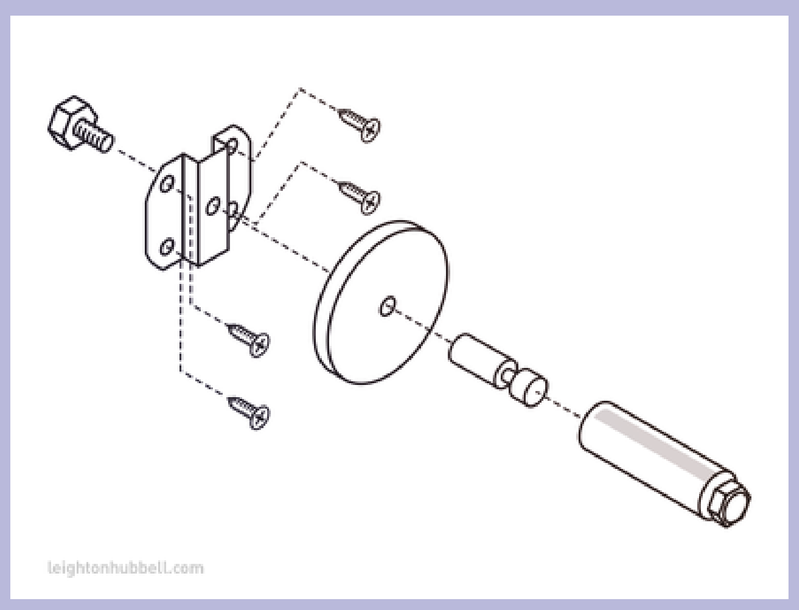
Evidence of perspective drawing are preserved in countries such as France, Italy and Greece (Dittar et al., 1980)

Artist-engineers used cutaway, exploded, and rotating views during this period (Bjerklie, 1998). All of these views are such today in various areas of drafting and design.

Leonardo da Vinci is widely considered the most prolific drafter during this period. He created drawings/designs that were practical and imaginary for buildings and weapons of war (Crunden & Cosyn, 1991).

Cutaway View

A cutaway (or section) view removes an object's structure on a particular plane. Used extensively today, and created during the Renaissance.




( Dribble, 2021)

Exploded View

Shows each component of an object as a separate entity allowing on the visualize construction. Very popular in modern day mechanical drafting.

# The Industrial Revolution and Drafting

1600-1700

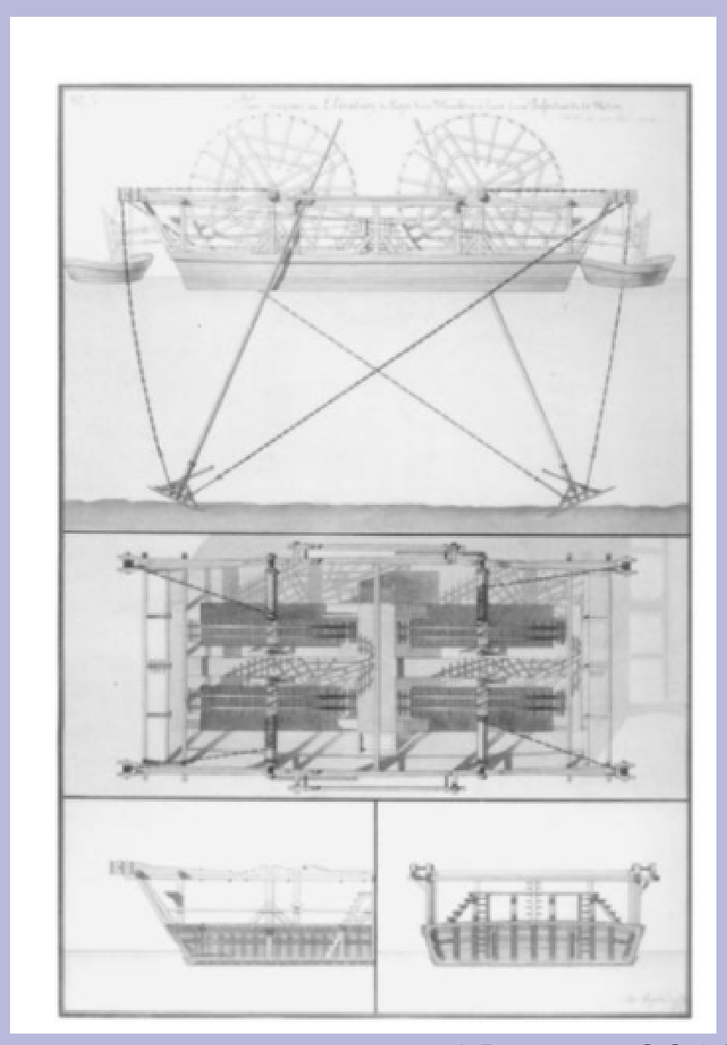
Gaspard Monge is credited for creating orthographic views.

**The birth of orthographic drawings.**

"Machinery capable of producing components in large quantities was invented. This is turn required standardization of the method by which information was conveyed to a large number of workers" (Crunden & Cosyn, p. 3, 1991).

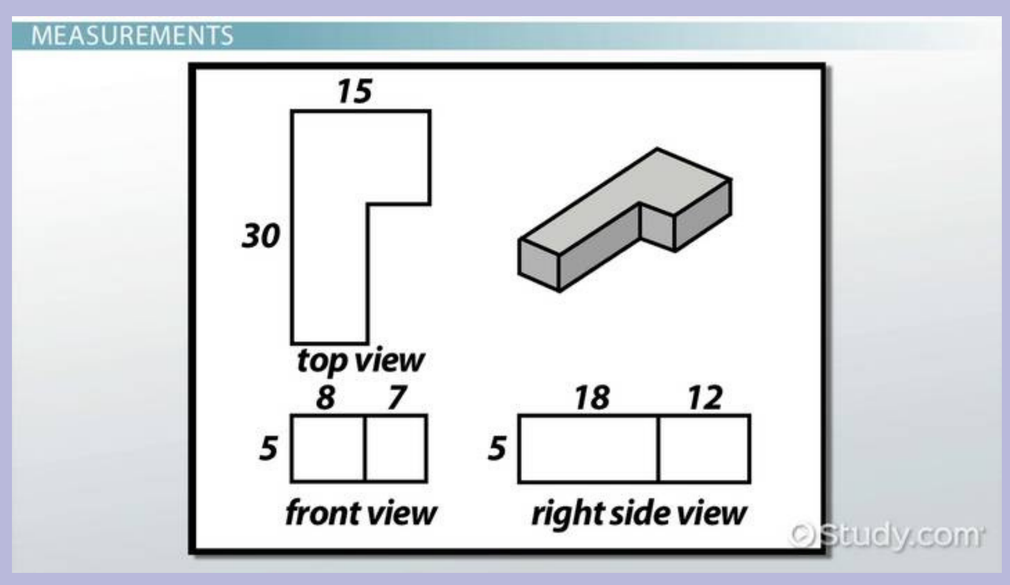
"Modern industry, which now spans the globe could not function without relaying information through orthographic views (Cruden & Cosyn, 1991)

The concept of conveying information on a two dimensional drawings contributes significantly to the two realms of modern day drafting, architectural and mechanical.



( Porter, 2013)

An orthographic drawing from 1819 (just after the industrial revolution) on a French dredger (Porter, 2013)

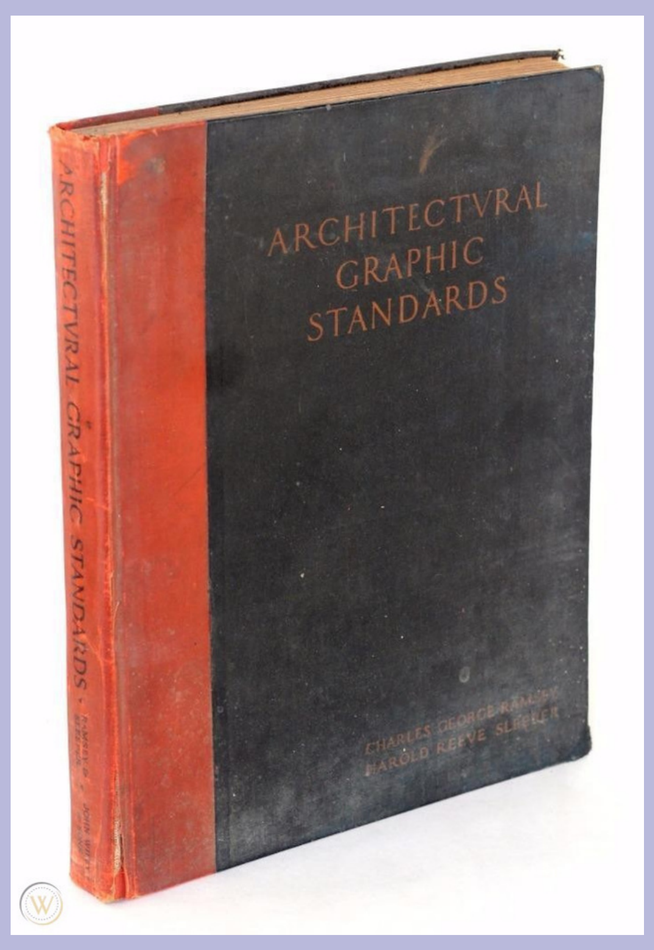



( Dribble, 2021)

An orthographic view from the current era produced on a computer aided design program.

# The 20th Century and Drafting

Architectural Graphic Standards allows for universal standards of paper type, symbols and drawing standards




1st Edition of Architectural Graphic Design - 1932

## Birth of "The Book"
## Birth of Computer Aided Design (CAD)

*Architectural Graphic Standards* was written by Charles Ramsey and Harold Sleeper in 1932 (Jhonston, 2006). The book is known as the bible of architecture. It is currently in it's 12 edition.

*Architectural Graphic Standards* became a staple for all architects and architectural students from the 40's onwards.

In the early 80's, AutoCad was first released. AutoCad is a CAD software program specifcally for drafting. It is used globally for both residential and commercial construction.

AutoCad continues to dominate the industry. Although expensive software, it is free for education purposes.

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